

Our mission is to provide a world-class transportation experience that delights our customers and promotes a prosperous Missouri.



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## Introduction

The Missouri Department of Transportation is committed to providing the public with a safe and modern transportation system. MoDOT designs, builds and maintains roads and bridges and works to improve airports, river ports, railroads, public transit systems and pedestrian and bicycle travel. The agency also administers motor carrier and highway safety programs.

In 10 districts statewide and at MoDOT's Central Office in Jefferson City, approximately 5,900 employees use the latest technology to serve the traveling public.

Today, stagnant state revenues, uncertain federal funding, rising internal costs and no more money coming from Amendment 3 mandated

direction that calls for a modification in its operations so the agency can continue to meet its commitments and maintain public satisfaction.

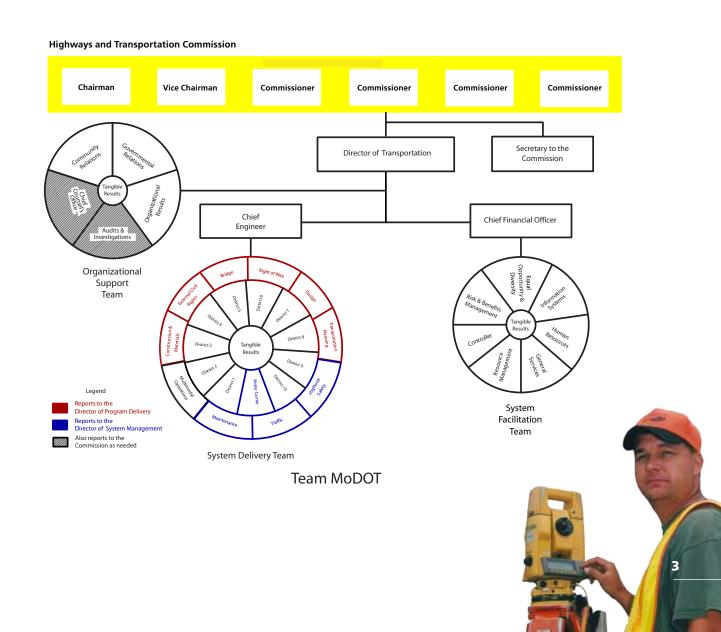
### Missouri Highways and **Transportation Commission**

The Missouri Highways and Transportation Commission is a six-member, bipartisan board that governs the Missouri Department of Transportation. Commission members are appointed for six-year terms by the governor and are confirmed by the Missouri Senate. No more than three commission members may be of the same political party.

The commission appoints the MoDOT director

and the secretary to the commission. The direcbonds has put MoDOT's construction program tor is responsible for appointing or hiring all on a steep decline. In response to this chalother employees. lenge, MoDOT has implemented a new five-year Jct Route St Charles

# **Organizational Chart**



## **MoDOT's Five-Year Direction**

For the last five years, MoDOT's construction program averaged \$1.25 billion a year; for the next five years, it will average just \$500 million a year. To address this challenge, MoDOT has set a new direction for the next five years to make the best use of existing resources.

The department will save at least \$301 million during this time by cutting costs, changing the

way business is conducted and eliminating at least 400 salaried positions.

The savings, extracted from existing resources, will enable MoDOT to:

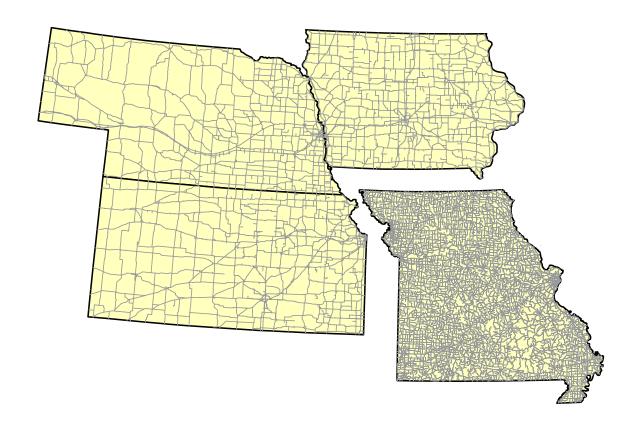
- honor its commitments in the Statewide Transportation Improvement Program;
- keep major roads in good condition;
- improve minor roads;
- hold its own on bridges; and
- provide outstanding customer service.



# **Highways and Bridges**

MoDOT plans, designs, constructs and maintains 33,639 miles of highways and 10,335 bridges and culverts – the nation's seventh largest state highway system, with more miles than lowa, Nebraska and Kansas' systems combined. Missouri also has more major river bridges, 53, than any other state. Missouri ranks 42nd nation-

ally in revenue per mile, primarily because the state's large system is funded with one of the lowest fuel taxes in the country. Plus, Missouri does not benefit from other types of funding, like tolling, available in neighboring and other states.



## **Construction Process**

### **Planning**

MoDOT plans its highway and bridge construction schedule using a rolling five-year plan called the Statewide Transportation Improvement Program. The STIP, prepared annually, sets forth the specific construction projects MoDOT commits to deliver to improve Missouri's highways, bridges, aviation, rail, transit, waterways, enhancements and other projects.

A quarterly publication, the Tracker, guides department operations and measures MoDOT's performance in giving customers what they want, such as uninterrupted traffic flow, smooth and unrestricted roads and bridges, a safe transportation system and the best value for every dollar spent.

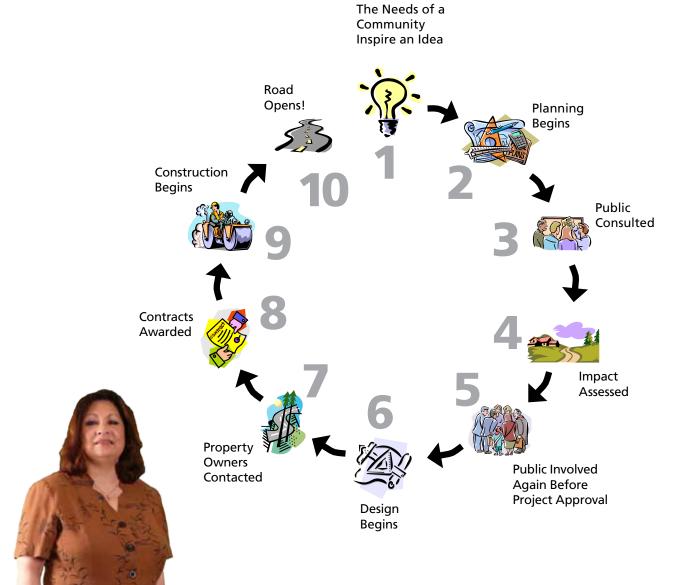
### **Public Involvement**

MoDOT is committed to involving Missourians, local and state officials, community leaders, transportation stakeholders and others interested in the process of planning for Missouri's transportation system by identifying needs, selecting projects and defining the work to be done.

MoDOT strives to provide clearly understandable information to the public in a process that is open, transparent and fair. Collaborative decisions can then be made to minimize project impacts on the natural and man-made, social and economic environments while enhancing safety and Missourians' quality of life.



## **Idea to Reality**



### **Design and Construction**

New highway and bridge projects must be carefully studied, planned and reviewed by the public and state and federal agencies before detailed plans can be produced. After all environmental requirements are met, MoDOT can design the project, purchase land and begin construction. This work is done by private contractors who submit bids for the projects.

### **Practical Design**

MoDOT challenges project engineers to use nontraditional project design methods to develop efficient solutions for today's project needs. Practical design places a premium on projects that deliver system-wide improvements and is rooted in the principle that building a series of good, not great, projects will result in a great system. It maximizes the value of a project by ensuring that it is the correct solution for its surroundings. Practical design is applied to every project and has enabled MoDOT to stretch its construction budget to build as many projects as possible. Cumulative cost savings since the inception of practical design in 2005 is \$1.2 billion.

#### Maintenance

MoDOT's work doesn't end when a road or bridge is built. Maintenance and traffic management keep traffic flowing safely and efficiently and maintain the condition of Missouri's roads and bridges. MoDOT provides snow removal, signing, striping, litter control and mowing services; maintains roadsides and rest areas; and completes routine road and bridge repairs. Engineers monitor traffic patterns and trends to plan future improvements. MoDOT's bridges and culverts are inspected at least every two years or more often as needed to ensure safety.

### **Partnerships**

Demands for transportation improvements have greatly outpaced the funds available to meet them. In response, MoDOT has established various mechanisms for successful public/public and public/private partnerships. These expand financing options for transportation projects that serve a public purpose, including highway and rail projects, transit equipment, air and water transportation facilities and elderly/ handicapped vehicles. The benefits to a project assisted by these partnerships may include inflation cost savings, early economic and public benefits, financing tailored to the project's needs and a reduced cost of project financing.

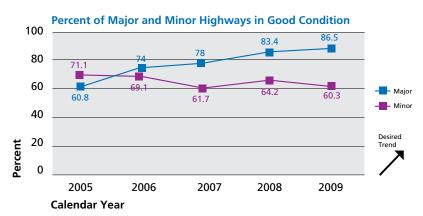
## **Transportation System Conditions**

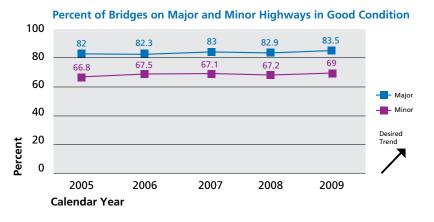
MoDOT places a high priority on improving the condition of state highways. Through various initiatives and an unexpected influx of funds through the American Recovery and Reinvestment Act of 2009, MoDOT has vastly improved

pavement conditions in Missouri. More than 86 percent of major highways are now rated in good condition. The Safe & Sound Bridge Improvement Program will repair or replace 802 of Missouri's worst bridges by the end of 2013.

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## **Conditions of Missouri Highways and Bridges**





## **Design-Build Projects**

The Missouri Legislature approved the use of three design-build contracts in 2002. This innovative project delivery method has allowed MoDOT to accelerate large construction projects at a great value for taxpayers.

#### **New I-64**

The reconstruction of Interstate 64 used a design-build concept to deliver 10 miles of refurbished interstate in the heart of St. Louis. The project was completed in April 2010, three months ahead of schedule, \$11 million under budget and with a 95 percent public approval rating. It was selected as the 2010 best transportation project in the country by the American Association of State Highway Transportation Officials, AAA and the U.S. Chamber of Commerce.

#### **kclCON**

The award-winning kcICON was Missouri's second design-build project. It involved the reconstruction and rehabilitation of 4.7 miles of Interstate 29 and 35 into the downtown Kansas City loop and construction of a new landmark, cable-stay Christopher S. Bond Missouri River bridge. All traffic moved to the new bridge in November 2010.

### Safe and Sound

Through the Safe & Sound Bridge Improvement Program, MoDOT will improve 802 of the state's lowest-rated bridges by the end of 2013. Of those bridges, 248 will be rehabilitated. Another 554 bridges will be replaced and have been packaged in a single design-build contract. The total cost of the program is estimated to be \$700 million.

Most bridges are being closed to speed construction and lower costs. On average, the

typical closure has been about 39 days – or half the time it normally takes to replace a bridge. During the construction season, a new bridge is completed once every two days or faster.

For more information, go to www.modot.mo.gov/safeandsound.







## **How Much Does it Cost?**

### Construction

The average construction costs of a roadway or bridge can fluctuate greatly depending on a number of factors. Roadway construction costs vary due to the type (interstate vs. state route), terrain and number of interchanges and bridges in a project. Bridge construction costs are dependent on the type of bridge and the requirements at the location of the bridge. The charts to the right outline typical, average costs to build or maintain a Missouri highway or bridge.

## Average Costs to Build or Maintain Missouri Highways

#### Cost to Resurface (per mile)

Major Highway \$850,000 Interstate \$1 million

#### Cost for New Construction (per mile)

Two-lane Highway \$1.7 million Four-lane Highway \$3.1 million

# Average Costs to Build or Maintain Missouri Bridges





### **Maintenance and Traffic Management**

MoDOT spends nearly \$433 million a year just to maintain Missouri's transportation system. That includes keeping highways, bridges, roadsides and rest areas in good condition; striping; snow removal; mowing; litter removal; and traffic management.

Average annual maintenance costs for some of these activities over the last five years include:

Snow Removal - \$40 million

Mowing - \$17.7 million

Litter Removal - \$5.5 million

**Signals** – Traditional traffic signals cost between \$100,000 to \$150,000 to install and about \$4,500 a year to maintain.

Signs – MoDOT makes an average of 130,000 signs per year to replace existing signs that are worn out or damaged, install new signs and handle other signing and decals needed for MoDOT operations. There are approximately 800,000 signs on the state highway system. Costs for these signs vary because they come in many shapes and sizes, but the average stop sign costs about \$400 to make and install.

### **Practical Operations**

Similar to Practical Design, MoDOT challenges its staff to focus on cost savings and consistency in the five core areas of operations, including snow removal, signing, striping, mowing and pavement maintenance. Statewide emphasis is to keep all roads safe and consistently maintained based on traffic volumes and regional significance. The savings are redirected to focus on the overall pavement and bridge conditions in an effort to maintain high levels of customer satisfaction.

# **Funding**

### **Federal Funding**

The largest source of Missouri's transportation revenue is from the federal government. That is primarily derived from Missouri's share of the nation's 18.4-cent per gallon tax on gasoline and 24.4-cents per gallon tax on diesel fuel. It also includes various highway user fees and other grants.

### **State Funding**

MoDOT also receives revenues from state sources. The largest source of state revenue is from the state's 17-cent per gallon fuel tax. MoDOT also receives a 9-cent per gallon tax on aviation fuel and a share of vehicle and driver licensing fees, as well as sales and use taxes on motor vehicle purchases and leases and aviation fuel.

### **State Funding for Roads and Bridges**

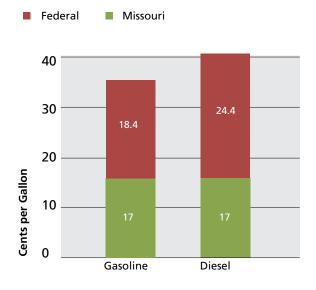


#### **Current Fuel Tax Rates**

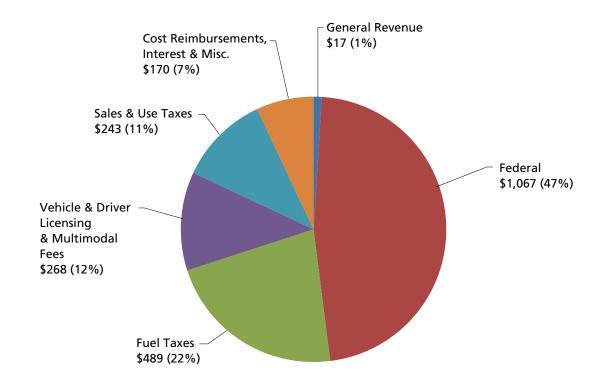
The primary funding source for Missouri's transportation system comes from fuel taxes. Federal and state rates are shown below.

Missouri's fuel tax rate is among the lowest of its neighboring states, most of which also benefit from other types of funding not available here. The last time Missouri's fuel tax rate was increased was in 1996, when it was raised two cents to 17 cents per gallon.

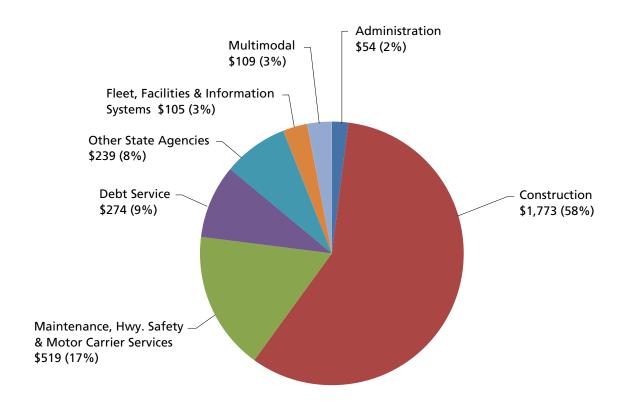
#### State and Federal Fuel Tax Rates



Dollars in millions



Dollars in millions



<sup>\*</sup>Existing cash balances will fund excess of disbursements over receipts.

## **Multimodal Operations**

MoDOT works with cities, counties and regional authorities to plan improvements for aviation, railroad, waterways and public transportation facilities, as well as bicycle and pedestrian programs in Missouri. MoDOT administers a number of state and federal programs that fund and support these modes and various associated facilities.

#### **Aviation**

Missouri has 131 public airports used by 12,081 state-registered pilots. At nine commercial service airports, commercial airlines provide service to approximately 23 million passengers each year.

#### Railroads

With more than 4,000 total miles of mainline track, Missouri's railroad system ranks 10th in the nation. Kansas City and St. Louis are the second and third busiest freight terminals in the country. There are also nearly 4,000 public highway-rail crossings in the state.

MoDOT regulates railroads in the areas of crossing safety and improvements; rail/highway

construction; track, crossing and train control signals; and operating practices of trains. The agency participates in rail safety outreach through Operation Lifesaver and other safety groups. MoDOT also regulates the safety aspects of the Metrolink light rail system in St. Louis and oversees the state's contract to provide Amtrak rail passenger service between St. Louis and Kansas City. The trains make eight intermediate stops in two daily round trips. Amtrak also provides national service on other routes in Missouri.

#### **Waterways**

MoDOT provides technical and financial assistance in development and operations for 14 public port authorities. Missouri has about 1,050 miles of navigable waterways – about 550 miles on the Missouri River and 500 miles on the Mississippi River. Missouri's waterways are used to transport bulk commodities such as grain, fertilizer and coal. Missouri is also home to the third largest inland port.

Publicly owned ferry services on the Mississippi River receive federal and state funding assistance through MoDOT.





### **Freight Development**

In an effort to build a more prosperous Missouri, MoDOT works across all modes of transportation to support efficient freight movement, increase modal connectivity and seek opportunities with the private sector to further expand freight services and facilities in the state. The department also participates in regional and national freight efforts and works in the transportation policy area in support of freight development.

### **Public Transportation**

MoDOT administers state and federal funds for 33 public transportation agencies and more than 200 specialized mobility providers for the elderly and persons with disabilities. Public transportation systems in Missouri provide more than 65 million one-way trips per year.

MoDOT also administers the federally funded Rural Transportation Assistance Program, providing training in defensive driving, passenger assistance and other essential skills to transit drivers.

### **Bicycling and Walking**

More than a million Missourians ride bicycles or walk for recreation, fitness or transportation each year. MoDOT and its planning partners strive to integrate nonmotorized travel facilities into the existing system to provide safe connections where none exist for bicyclists and pedestrians. The department also administers federal funds for Safe Routes to School and Transportation Enhancement projects, many of which include bike lanes, sidewalks and shared use paths.

State bicycle maps and other useful information like road conditions, traffic volumes, location of paved shoulders and directories to places of interest are available at <a href="https://www.modot.org">www.modot.org</a>.



## **Safety**

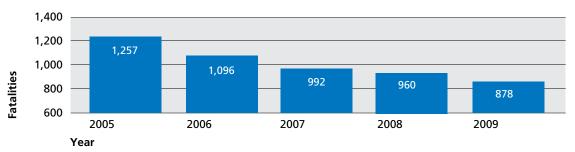
### **Highway Safety**

Traffic crashes on Missouri roadways in 2009 resulted in 878 deaths and 6,540 disabling injuries, the lowest since 1950. Through research and analysis of traffic crash data, MoDOT's Highway Safety Division develops programs that address high-risk driver behaviors such as impaired driv-

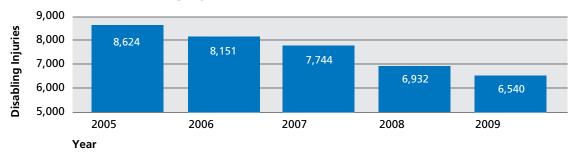
ing, failure to use safety belts and child safety seats, speeding and distracted driving.

MoDOT works with safety advocates across the state to implement Missouri's Blueprint to Arrive Alive. The aim of the blueprint is to reduce the number of traffic fatalities and reach a goal of 850 or fewer fatalities by 2012.

### **Traffic Crash Fatalities 2005-2009**



### **Traffic Crash Disabling Injuries 2005-2009**



### **Safety Strategies**

As part of the Missouri Coalition for Roadway Safety, MoDOT assists in strategic implementation of safety measures in the areas of education, enforcement, engineering and emergency medical services to reduce the number of fatal and disabling injury accidents on Missouri roadways. For more information, go to www. savemolives.com.





MoDOT's highway work zone safety campaign reminds travelers to take extra care when traveling in work zones. At any time, hundreds of construction and maintenance projects are under way to improve transportation in Missouri. Smart driving behavior is critical to the safety of travelers and workers.

Travelers can check MoDOT's website, www. modot.org, to learn the location of highway projects or comment on work zone conditions.

"We're committed to getting every motorist home safely.

Wearing a seat belt is your best defense in any type of crash.

Buckle your kids in as well, slow down, pay attention and

always drive sober."

MoDOT Director Kevin Keith





## **Being Green**

MoDOT is committed to environmentally and socially responsible practices. The department also works to provide alternative transportation choices throughout the state that ultimately help reduce harmful emissions and improve the quality of air. In addition, MoDOT participates as a member of the state recycling committee.

### Recycling

MoDOT recycles many products – tires, roofing shingles, coal cinders, concrete, glass beads, steel and even entire roads and bridges – and reuses them in construction projects or for other purposes. Since 2005, MoDOT has kept nearly 8.2 billion pounds of waste from landfills. In addition, 6.2 million pounds of office waste material have been recycled since 2005.

MoDOT also recycles 7,000 light bulbs from traffic signals, street lights and office buildings per year. Plus, about 70 percent of state highway signs are produced from reclaimed material.

### **Energy Efficiency**

MoDOT is embracing greener technologies for construction projects that take less energy to produce and cut harmful emissions. For ex-





ample, MoDOT is substituting warm mix asphalt for the more energy consuming hot-mix asphalt. It reuses concrete in roadway fill and fly ash in concrete pavement. Plus, some MoDOT contracts contain green credits to encourage environmentally friendly construction practices.

Furthermore, the department has implemented methods to reduce electricity usage in its facilities and street and traffic lighting, as well as decrease fuel consumption and emissions within its fleet. MoDOT retrofits its buildings to be more energy efficient and places an emphasis on purchasing a fleet with greater fuel efficiency. The implementation of flexible work schedules, video conferencing and telecommuting help reduce vehicular trips and the resulting emissions.

### **Commuter Lots and Carpooling**

MoDOT operates 112 commuter lots across the state. These lots allow people to park their personal vehicles at a single location and share a ride with a group to conserve nonrenewable natural resources and reduce harmful emissions. The department also provides links to carpooling services in Missouri to make it easier for motorists to team up with others for the drive to work.

## The Future of Transportation Arrives

### **Intelligent Transportation Systems**

Intelligent Transportation Systems provide an economically sound and environmentally efficient solution to the problems plaguing the nation's transportation system. These congestion management and traveler information systems use highly advanced technology to offer drivers a safer, faster and more manageable commute.

Three Missouri cities enjoy the advantages of this technology: St. Louis – Gateway Guide, Kansas City – Kansas City Scout and Springfield Ozarks Traffic. These traffic management centers keep the traffic flowing smoothly by using a network of closed-circuit television cameras, dynamic message signs, vehicle detector loops, highway advisory radio and Internet websites.

## **Rural Electronic Message Boards**

While there are 203 dynamic message boards statewide, 66 are rural electronic message boards on Interstates 70, 44, 55, 57, 29, 35 and on U.S. Route 60. They instantly inform travelers

about road closings, accidents, hazardous road conditions and Amber Alerts on missing children.

### **Motorist Assist**

MoDOT's Motorist Assist is the first component of an intelligent transportation system's management tools. As first responders, they feed information back to a transportation management center while physically helping clear problems from the highway.



Motorist Assist and Emergency Response patrol some of the busiest interstates in and around the Kansas City and St. Louis metropolitan areas, offering assistance to disabled motorists and searching for lane obstructions such as stalled vehicles, car accidents or debris. They also provide support to law enforcement, emergency responders and other emergency agencies in the form of traffic control and back up for incidents on area interstates. Their efforts help improve air quality, relieve congestion and keep traffic flowing smoothly and safely through the state's largest metropolitan areas.

#### **Electronic Weather Sensors**

MoDOT uses 16 environmental sensor stations that provide data on wind, temperature, humidity, visibility and pavement surface and sub-surface temperatures. The weather information system helps MoDOT determine how

TOTORIST ASSIST

to treat road surfaces before, during and after winter storms or if pavement temperatures are adequate for maintenance work like striping or applying asphalt treatments. The weather sensor stations are located along I-44 from the Oklahoma border to St. Louis, on I-70 in St. Louis and on Route 36 in St. Joseph.

### **Traveler Information Map**

MoDOT's Traveler Information Map provides a view of road conditions for major Missouri

highways. The map shows work zone locations, flooding information, weather-related road conditions and incidents that affect travel. Commercial drivers can view information on oversized/over-dimension loads, vertical clearance and commercial zones. A weather radar image and links to road condition maps for surrounding states are also available on the Traveler Information Map at www.modot.org.



## **Other MoDOT Programs/Services**

### **Adopt-A-Highway**

Individuals and organizations interested in improving Missouri's environment can volunteer to help with litter pickup, beautification or mowing through MoDOT's Adopt-A-Highway program. More than 4,200 volunteer groups are responsible for about 6,100 miles of roadway.

Businesses or groups in Kansas City and St. Louis can financially support litter removal through Sponsor-A-Highway. Sponsors receive a sign



displaying their name and logo denoting the highway section they have sponsored. To adopt, call 1-888-ASK-MoDOT (275-6636) or e-mail aah@modot. mo.gov.

#### **Motor Carrier Services**

MoDOT Motor Carrier Services supports the state's trucking industry by providing a single location where business owners can:

- Register equipment and obtain license plates for interstate travel
- Receive Missouri operating authority
- Pay fuel tax obligations and get help filing returns
- Obtain safely routed permits for loads that exceed size and weight limits

- Receive training on federal and state safety regulations
- Access accounts 24 hours a day through MoDOT Carrier Express, online

MCS also audits and investigates safety and economic issues. When carriers violate regulations, resulting in unsafe conditions or unfair business conditions, the division prepares cases for prosecution. In short, MCS keeps the economy rolling safely down Missouri highways.

# Disadvantaged Business Opportunities

MoDOT helps Disadvantaged Business Enterprise firms build capacity and position themselves to grow and successfully compete for new and better business opportunities. The department administers several supportive services, like the Entrepreneurship Training, Business Coaching, NAICS Code Expansion and Mentor Protégé programs. MoDOT also provides other resources, such as business assistance centers and a variety of workshops, for DBE firms in Missouri.

#### **MoTOR**

Missouri Teaching Out-Reach, or MoTOR, is a hands-on, transportation and engineering career development education program made available to all schools. The program's specific focus is to improve workforce diversity by drawing talented women and minorities into the transportation field.

## **Contacting MoDOT**

- **Northwest District** 3602 N. Belt Highway St. Joseph, MO 64506 816-387-2350
- **North Certain**902 N. Missouri St. **North Central District** Macon, MO 63552 660-385-3176
- **Northeast District** 1711 S. Hwy. 61 Hannibal, MO 63401 573-248-2490

- **Kansas City Area District** 600 NE Colbern Road Lee's Summit, MO 64086 816-607-2000
- **Central District** 1511 Missouri Blvd. Jefferson City, MO 65109 573-751-3322
- St. Louis Area District 5 1590 Woodlake Drive Chesterfield, MO 63017 314-275-1500

- **Southwest District** 3901 E. 32nd St. Joplin, MO 64804 417-621-6500
- **Springfield Area District** 3025 E. Kearney St. Springfield, MO 65801 417-895-7600
- **South Central District** 910 Old Springfield Road Willow Springs, MO 65793 417-469-3134
- **Southeast District** 2675 N. Main St. Sikeston, MO 63801 573-472-5333

#### **Central Office**

105 W. Capitol Ave. Jefferson City, MO 65102 573-751-2551

888-ASK MoDOT www.modot.org













